Math1210 Final Exam Topics

Limits:
      As x goes to a finite number (0/0 case)
      As x goes to a finite number (A/0 case, where A is not zero)
      As x goes to infinity
      Continuity
      Definition of Derivative
      Trig Functions
      Definition of Definite Integral

Derivatives:
      Power Rule
      Product Rule
      Quotient Rule
      Chain Rule
      Trignometric Derivatives
      Higher Order Derivatives
      Implicit Differentiation
      Related Rates
      Analyze Graph
      Optimization Story Problems
      MVT for Derivatives
      Differentials (approximations)
      Newton's method

Integration:
      Indefinite Integrals
      Power Rule
      U-substitution
      Definite Integrals
      Solve Differential Equations
      MVT for Integrals
      Average Value
      First Fundamental Theorem of Calculus
      Second Fundamental Theorem of Calculus
      Area of bounded 2d region
      Volume of 3d solid of revolution
            Washer/Disk method
            Shell method
      Arc length of a smooth curve
      Surface Area of a solid
      Work
      Centroid of a 2d closed, bounded region